UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

Cascades Computer Innovation, LLC,

Plaintiff,

v.

Civil Action 1:11-cv-4574

Samsung Electronics Co., Ltd.,

Defendant.

The Hon. Matthew F. Kennelly

SAMSUNG'S RENEWED MOTION FOR JUDGMENT AS A MATTER OF LAW
THAT CLAIMS 1 AND 15 OF THE '750 PATENT ARE INVALID AND CONDITIONAL
MOTION IN THE ALTERNATIVE FOR A NEW TRIAL ON THE ISSUE OF
INVALIDITY

TABLE OF CONTENTS

I.	INTR	RODUCTION 1		
II.	LEGAL STANDARD			2
	A.	Judgment as a Matter of Law		
	B.	Antic	cipation	2
	C.	Obviousness		
III.	ARGUMENT			
	A.	_	ment as a Matter of Law Should be Entered That the Asserted Claims	3
		1.	The Le '514 Patent Discloses Every Limitation of Claims 1 and 15 of the '750 Patent	4
		2.	Cascades Offered No Evidence to Rebut Dr. Medvidovic's Analysis	5
		3.	The Claims of the '750 Patent Were Obvious in Light of the Disclosures in the '514 Patent	9
IV.	CON	CLUSI	ON	10

TABLE OF AUTHORITIES

Cases

Akzo N.V. v. U.S. Int'l. Trade Comm'n, 808 F.2d 1471 (Fed. Cir. 1986)	5
Black & Decker Inc. v. Robert Bosch Tool Corp., 476 F. Supp. 2d 887 (N.D. Ill. 2007)	2
Erickson v. Wisconsin Dept. of Corrections, 469 F.3d 600 (7th Cir. 2006)	2
Honaker v. Smith, 256 F.3d 477 (7th Cir. 2001)	2
In re Gleave, 560 F.3d 1331 (Fed. Cir. 2009)	3, 5
InTouch Techs., Inc. v. VGO Commc'ns, Inc., 751 F.3d 1327 (Fed. Cir. 2014)	3
Krippelz v. Ford Motor Co, 667 F.3d 1261 (Fed. Cir. 2012)	2, 6
KSR Int'l. Co. v. Teleflex Inc., 550 U.S. 398 (2007)	3
Liebel-Flarsheim Co. v. Medrad, Inc., 481 F.3d 1371 (Fed. Cir. 2007)	2
Meds. Co. v. Mylan Inc., 72 F. Supp. 3d 837 (N.D. Ill. 2014)	3
Reeves v. Sanderson Plumbing Prods., Inc., 530 U.S. 133 (2000)	2
Zelinski v. Brunswick Corp., 185 F.3d 1311 (Fed. Cir. 1999)	6
Statutes	
35 U.S.C. 8 102	2.3

I. INTRODUCTION

Cascades asserted claims 1 and 15 of U.S. Patent No. 7,065,750 ("the '750 patent") against Samsung in this case. *See* Dkt. 419 (Jury Instructions) at 17. At trial, Samsung challenged the validity of the asserted claims of the '750 patent as both anticipated and rendered obvious by the prior art. *See id.* at 22. At the close of evidence, Samsung moved for judgment as a matter of law under Federal Rule of Civil Procedure 50(a) on a number of grounds, including that claims 1 and 15 of the '750 patent are invalid as anticipated and obvious . (*See* Ex. 1, Trial Tr. at 1071:22-23; Dkt. 417). The Court took these motions under advisement and submitted the case to the jury. (Ex. 1, Trial Tr. at 1071:24). The jury found that Samsung proved by a preponderance of the evidence that it did not directly or indirectly infringe the asserted claims, but also that Samsung had not proved by clear and convincing evidence that the asserted claims of the '750 patent were invalid. (*See id.* at 1150:3-20). The Court entered judgment on September 21, 2015 in Samsung's favor. Dkt. 421.

Pursuant to Rule 50(b), Samsung renews its motion for JMOL that claims 1 and 15 of the '750 patent are invalid as anticipated or rendered obvious by U.S. Patent No. 6,631,514 ["the Le '514 patent"]. As a matter of law based on the evidence presented at trial, the '750 patent is invalid.

Cascades put up no more than a facial case to rebut Samsung's detailed explanation of invalidity. It is undisputed that nearly every element of the asserted claims can be found in the prior art Le '514 patent. The only dispute raised by Cascades was through purely conclusory testimony that failed to even reference the prior art exhibit or point to specific language contained within, and so should be disregarded as a matter of law. Given Samsung's overwhelming evidence demonstrating how each and every element of the asserted claims was

disclosed in, and/or rendered obvious by, the Le '514 patent, and Cascades' failure to put forth a validity case, no reasonable juror could have found the '750 patent not invalid.

II. LEGAL STANDARD

A. Judgment as a Matter of Law

"The law of the Seventh Circuit controls the standard for motions for judgment as a matter of law pursuant to Federal Rule of Civil Procedure 50 because they involve procedural issues not unique to patent law." *Black & Decker Inc. v. Robert Bosch Tool Corp.*, 476 F. Supp. 2d 887, 891 (N.D. Ill. 2007). JMOL is appropriate when no reasonable jury could have found in favor of the non-movant. *Erickson v. Wis. Dept. of Corr.*, 469 F.3d 600, 601 (7th Cir. 2006).

"[A] court should render judgment as a matter of law 'when a party has been fully heard on an issue and there is no legally sufficient evidentiary basis for a reasonable jury to find for the party on that issue." *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 149 (2000). The Court must "judge whether the evidence in support of the verdict is substantial; the party opposing the motion must have put forward more than a 'mere scintilla' of evidence to support that jury verdict." *Honaker v. Smith*, 256 F.3d 477, 484 (7th Cir. 2001). "If, after reviewing all of the evidence in the case, the nonmoving party did not introduce enough evidence to support his claim, then judgment as a matter of law is appropriate." *Id*.

B. Anticipation

Samsung bears the burden of proof as to invalidity; however, judgment as a matter of law is appropriate if no reasonable jury could fail to find the patents invalid. *See, e.g., Krippelz v. Ford Motor Co.*, 667 F.3d 1261, 1265 (Fed. Cir. 2012) (reversing denial of JMOL of anticipation). A patent claim is invalid as anticipated under 35 U.S.C. § 102 if a prior art publication discloses every limitation of the claimed invention, either explicitly or inherently. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371, 1381 (Fed. Cir. 2007). The reference need

not use the exact words of the claims to disclose each limitation. *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009).

C. Obviousness

"Obviousness is a question of law based on underlying factual findings: (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the art; and (4) objective considerations of nonobviousness." *Meds. Co. v. Mylan Inc.*, 72 F. Supp. 3d 837, 855 (N.D. Ill. 2014) (citing *InTouch Techs., Inc. v. VGO Commc'ns, Inc.*, 751 F.3d 1327, 1347 (Fed. Cir. 2014)). A directed verdict is appropriate where "the content of the prior art, the scope of the patent claim, and the level of ordinary skill in the art are not in material dispute, and the obviousness of the claim is apparent in light of these factors..." *KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. 398, 427 (2007) (granting summary judgment of obviousness).

III. ARGUMENT

A. Judgment as a Matter of Law Should be Entered That the Asserted Claims are Invalid

At trial, Samsung presented clear, convincing, and unrebutted evidence that the asserted claims of the '750 patent are anticipated by the Le '514 patent.

The Le '514 patent was filed by Bich-Cau Le on January 6, 1998, over a year before the '750 patent's claimed priority date of February 17, 1999. It is undisputed that the Le '514 patent is prior art under 35 U.S.C. § 102. (Ex. 1, Trial Tr. at 1086:12-17).

As Dr. Medvidovic explained at trial, the Le '514 patent discloses "a binary translation system that would allow [a programmer] to run code written for one architecture after translating it to run it on another architecture." (*Id.* at 953:19-22 (Medvidovic Direct)). Like the '750 patent, the Le '514 patent sought to translate code originally written for the Intel architecture to

run on a different architecture. The Le '514 patent's exemplary target or host architecture was the Alpha processor, an "optimized" processor similar to the exemplary Elbrus processor of the '750 patent. (Ex. 4, Le '514 patent (DX-68); Ex. 1, Trial Tr. at 954:4-10 (Medvidovic Direct)). In fact, Dr. Medvidovic explained that the two processors and two techniques were so similar that if you were to just replace the word "Alpha" with "Elbrus," the two patents are identical:

Q. And what did the Le patent disclose about how to translate from one architect to another?

A. They wanted to do binary translation. And, in fact, as this highlights, they wanted to go from Intel processors to, in their case, Alpha processors. Alpha processors were very fast, similar to kind of how we think of the Elbrus processors.

Q. So how does this compare to what the '750 patent taught?

A. So in my view, after studying all of this, in this particular slide, in this picture, if you were to just replace Alpha with Elbrus, the two patents really, as far as claims 1 and 15 are concerned, teach the exact same thing.

(Ex. 1, Trial Tr. at 954:4-15 (Medvidovic Direct).

The similarities don't end there. Both patents seek to solve the same specific problem: how to handle exceptions that arise during execution of translated code:

'750 Patent	'514 Patent
The present invention relates to a computer system executing foreign code and more particularly to a computer system and method for efficient handling of exceptions that arise when executing binary translated code.	Therefore, there is a need in the art for a translator that allows the translated instructions to be reordered in a different and more efficient way on the target architecture, and thus yields better performance, and yet can manage exceptions or traps.
(Ex. 3, '750 patent (PX-1), at 1:36-39)	(Ex. 4, Le '514 patent (DX-68), at 2:39-43)

(*See also* Ex. 1, Trial Tr. at 953:17-954:10 (Medvidovic Direct); Ex. 4, Le '514 patent (DX-68) at 1:26-49). None of this was disputed at trial by Cascades or its expert.

1. The Le '514 Patent Discloses Every Limitation of Claims 1 and 15 of the '750 Patent

At trial, Dr. Medvidovic walked through each claim element of the '750 patent and established by clear and convincing evidence that the Le '514 patent disclosed each element. Dr. Medvidovic's testimony overcame the '750 patent's presumptive validity, and there was no credible, substantive evidence upon which a reasonable jury could have based its verdict of no invalidity.

At trial, Cascades used Samsung's literal infringement analysis to argue (with some apparent success) that, unless the prior art uses the same verbiage as that in the claims, there is no invalidity. (*See* Ex. 1, Trial Tr. at 1046:24-1047:5 (Medvidovic Cross)). Despite the jury's verdict against invalidity, the argument is incorrect. As a matter of law, an invalidity reference need not use the literal words of the claims to invalidate a patent. *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) ("While those elements must be 'arranged or combined in the same way as in the claim, the [prior art] reference need not satisfy an *ipsissimis verbis* test.") (internal citations omitted); *See Akzo N.V. v. U.S. Int'l. Trade Comm'n*, 808 F.2d 1471, 1479 n.11 (Fed. Cir. 1986) ("An '*ipsissimis verbis*'" test is one which would "require[] the same terminology in the prior art in order to find anticipation.").

The attached Exhibit 2 shows testimony offered by Dr. Medvidovic along with the supporting documentary evidence from the Le '514 patent he identified during his direct examination demonstrating that claims 1 and 15 of the '750 patent are anticipated by the Le '514 patent. Moreover, Cascades conceded that the first four elements of claim 1 and the first two elements of claim 15 are fully disclosed in the Le '514 patent. (Ex. 5 (PDX-88); Ex. 6 (PDX-89); Ex. 1, Trial Tr. at 744:12-745:12 (Purdy Direct)).

2. Cascades Offered No Evidence to Rebut Dr. Medvidovic's Analysis

During its case-in-chief, Cascades' expert rested his entire opinion of validity on only two conclusory arguments why the Le '514 patent did not anticipate the '750 patent:¹

- 1) The Le '514 patent did not teach the claimed "documentation"; and
- 2) the register maps (RMAPs), which Samsung's expert demonstrated corresponded to the claimed documentation of the '750 patent—were not generated during optimized binary translation.

(Ex. 1, Trial Tr. at 741:11-742:11 (Purdy Direct)).

But conclusory statements are insufficient to sustain the validity verdict. *Krippelz*, 667 F.3d at 1269-70 (Fed. Cir. 2012) (reversing a trial judge's denial of JMOL on invalidity and holding that an expert's generic statements were "too conclusory to sustain the jury's [validity] verdict"); *see also Zelinski v. Brunswick Corp.*, 185 F.3d 1311, 1317 (Fed. Cir. 1999) (finding conclusory expert testimony without evidentiary support failed to raise a genuine issue of material fact). Regardless, no reasonable factfinder could conclude that these alleged differences are, in fact, true.

First, it cannot be reasonably disputed that the Le '514 patent discloses documentation. Cascades' expert admitted that the Le '514 patent disclosed an RMAP that is "a recovery mechanism with a table of a pairing of registers." (Ex. 1, Trial Tr. at 741:15-17 (Purdy Direct); see also Ex. 4, Le '514 patent (DX-68) at 6:1-5 ("... The initial RMAP maps each legacy [foreign] register... to its corresponding physical architectural [host] register.")). This is identical to the documentation described in the '750 patent, which "contains information where all foreign registers are located in the host registers." (Ex. 3, '750 patent (PX-1) at 9:35-39; see also id. at

Cascades' unsupported argument that "the Kelly '205 patent is presumed to be the most relevant prior art" based on the PTO's initial rejection of the '750 patent is a red herring. The applicants amended the asserted claims of the '750 patent specifically to get around the disclosure in the Kelly '205 patent, and these amendments led to the allowance of the asserted claims. The amended claims are at issue here, and there is no basis to argue that the Kelly '205 patent is more relevant than the Le '514 patent to the invalidity of the asserted claims.

14:1-10 (visually showing a documentation)). Samsung's expert, Dr. Medvidovic testified after Cascades' case-in-chief about these examples, explaining that the '750 patent's documentation is identical to the Le '514 patent documentation: "So the '750 patent shows a couple of examples of documentation. And, in fact, in those examples, it shows the documentation as, in fact, a register map that is drawn as a table." (Ex. 1, Trial Tr. 969:23-970:4 (Medvidovic Direct); *see also id.* at 969:23-970:17; Ex. 3, '750 patent (PX-1) at 14:1-10). Dr. Medvidovic further explained that the RMAPs taught in the Le '514 patent have the same purpose—restoring the foreign state—as the claimed documentation in the '750 patent. (*Id.* at 970:18-971:19 (Medvidovic Direct)). Dr. Medvidovic's opinions were left unchallenged during trial as Cascades did not cross examine him on these opinions and chose not to present rebuttal testimony from its own expert. In fact, Cascades' own expert agreed that the Le '514 patent's RMAPs had the same purpose of "restor[ing] some of the foreign state." (*Id.* at 742:16-21 (Purdy Direct)).

Second, the documentation of the Le '514 patent is generated at the same time as in claim 15 of the '750 patent -- during optimized translation.² Dr. Medvidovic explained that the RMAP documentation as described in the Le '514 patent is generated during optimized binary translation, exactly as required in claim 15 of the '750 patent. Dr. Medvidovic explained that the optimized binary translation described in the Le '514 patent performs a series of phases including a "register renaming phase." (*Id.* at 973:16-975:8 (Medvidovic Direct); Ex. 4, Le '514 patent (DX-68) at 10:56 ("Translation is performed in the following steps..."); 11:13-15 ("During this [scheduling] phase, writes to architecture register state are automatically renamed to target

Mr. Purdy alleges that the requirement of generating documentation "during the optimized translation" process is present in both asserted claims. However, the language he points to only appears in Claim 15 and not in Claim 1. As such, Mr. Purdy's second opinion on validity is irrelevant to Claim 1 of the '750 patent.

pseudo registers."); 6:1-2 ("During the renaming phase, a register MAP (RMAP) defining the dynamic legacy-to-native register mappings is computed.")). He then explained that the optimized binary translator taught in the Le '514 patent creates the RMAPs during the "register renaming phase." (Ex. 1, Trial Tr. at 975:9-17 (Medvidovic Direct) ("So he talks about, in the very top it says, during the renaming phase, a register map, RMAP, defining the dynamic legacy-to-native or foreign-to-host register mapping is computed. The renaming phase is a phase of the optimized translation process."); *see also id.* at 975:9-976:12 (Medvidovic Direct)). Again, Dr. Medvidovic's invalidity opinions were left unchallenged by Cascades during his cross examination, and Cascades chose not to offer rebuttal testimony from its own expert.

Indeed, even under Cascades' expert's flawed description of the Le '514 patent, the documentation is *always* generated during optimized translation. As Dr. Medvidovic explained:

Q. [] So... let's assume that Mr. Purdy is right about the points that he maps. Let's start with the timing of the generation of the documentation.

If everything else in Claim 1 and 15 was present in Le but there was doubt about whether or not the documentation was supposed to be generated at translation like you pointed to in the patent or at another time as Mr. Purdy points to, is it obvious to a person of ordinary skill to know to do that?

A. It's obvious, but there's another important point to make there. Mr. Purdy doesn't dispute that the '514 generates the documentation during optimized translation. I think he just points out that according to his understanding, which I disagree with, that documentation gets regenerated during the recovery process.

So the fact that it already got generated once, you can just, even if it got generated a second time, which it done[sic-doesn't], but even if it did, there is -- it's zero work to just throw away the second set of documentation and just keep the first one. So in that sense, that's really -- it's obvious.

(*Id. at* 988:10-989:3 (Medvidovic Direct)). Even if one were to credit Cascades' expert's explanation of the Le '514 patent, that analysis still fails to raise a dispute that it invalidates the asserted claims of the '750 patent.

3. The Claims of the '750 Patent Were Obvious in Light of the Disclosures in the '514 Patent

Samsung has proven by clear and convincing evidence that Claims 1 and 15 of the '750 patent would have been obvious to a person of ordinary skill in the art in light of the disclosures of the Le '514 patent. Dr. Medvidovic testified at length to disclosures found in the Le '514 patent. (Ex. 1, Trial Tr. at 953:13-989:3 (Medvidovic Direct)). Dr. Medvidovic further testified that the claim elements Cascades' argued were allegedly missing—that the documentation described in the Le '514 patent be generated during optimized translation—would have been obvious to a person of ordinary skill at the time of the invention of the '750 patent. (*Id.* at 988:4-989:3 (Medvidovic Direct)).

Contrary to Cascades' argument, Dr. Medvidovic did not apply a "hindsight" test. At trial, Dr. Medvidovic testified that he assessed whether the '750 patent would have been obvious to a person of ordinary skill at the time of the alleged invention. Indeed, Dr. Medvidovic explained that he has specialized knowledge and experience with the very architecture described in the Le '514 patent -- the Alpha architecture:

Q. Okay. Now, you mentioned the Alpha Architecture again. Did you have -- do you have any personal familiarity with the Alpha Architecture?

A. I do.

Q. How do you -- how did you work on this architecture?

A. When I was a graduate student, we had -- at that time, the Alpha processor was owned by a company called Digital Equipment Corporation, what's called a DEC Alpha. And both the teaching or instructional labs at UC Irvine and a couple of the research labs in which I worked had DEC Alphas in them. And I had the opportunity to work on those machines. At that time, they were considered highend machines.

(*Id.* at 980:2-13 (Medvidovic Direct)). As part of his research, Dr. Medvidovic was working on how to execute computer programs on multiple platforms and testified that he was familiar with the problems that two patents were trying to solve at the exact time that they were trying to solve

them. (*Id.* at 980:14-981:3 (Medvidovic Direct)). Indeed, Dr. Medvidovic specifically explained that because of this experience, he was able to avoid any risk of hindsight analysis:

Q. And you understand that when I'm asking the question, I'm asking you to put yourself in the shoes of somebody in 1999, right?

A. Right. And I just -- it's just fortuitous that I was such a person in 1999, so it's kind of easy for me to think back then to what I knew and how I would have read the two patents.

(*Id.* at 987:18-988:9 (Medvidovic Direct)). No witness at trial except Dr. Medvidovic testified to using the exact architecture described by the Le '514 patent at the time of its invention and facing the very same problems faced by Mr. Le and the inventors of the '750 patent. And Dr. Medvidovic's opinion is that the Le '514 patent fully anticipates the asserted claims of the '750 patent. Further, Dr. Medvidovic also testified that somebody facing these problems, and familiar with the Le '514 patent, would be able to come up with everything in the '750 patent even if the conclusory differences identified by Cascades were true.

IV. CONCLUSION

Wherefore, on the basis of the foregoing, Samsung asks that JMOL of invalidity of claims 1 and 15 of the '750 patent be granted in Samsung's favor. Alternatively, but only in the event that a new trial is granted on any other issue(s), any new trial should also include the issue of invalidity of claims 1 and 15.

Dated: October 19, 2015

By: _____/s/ Luke Dauchot

Luke L. Dauchot Craig D. Leavell KIRKLAND & ELLIS LLP 300 North LaSalle Chicago, IL 60654 luke.dauchot@kirkland.com (312) 862 9292 craig.leavell@kirkland.com (312) 862 2015

Brandon Brown KIRKLAND & ELLIS LLP 555 California Street, 27th Floor San Francisco, CA 94104 brandon.brown@kirkland.com (415) 439-1670

Attorneys for Defendant Samsung Electronics Co., Ltd.

CERTIFICATE OF ELECTRONIC SERVICE

I hereby certify that on October 19, 2015, I caused to be electronically filed the foregoing

SAMSUNG'S RENEWED MOTION FOR JUDGMENT AS A MATTER OF LAW THAT CLAIMS 1 AND 15 OF THE '750 PATENT ARE INVALID AND CONDITIONAL MOTION IN THE ALTERNATIVE FOR A NEW TRIAL ON THE ISSUE OF

INVALIDITY with the Clerk of the Court for the Northern District of Illinois using the ECF System, which will send notification to counsel of record.

Ashley E. LaValley (alavalley@nshn.com)
Paul C. Gibbons (gibbons@nshn.com)
Raymond P. Niro (rniro@nshn.com)
Arthur A. Gasey (gasey@nshn.com)
Christopher W. Niro (cniro@nshn.com)
Dean D. Niro (dniro@nshn.com)
Olivia T. Luk (oluk@nshn.com)
NIRO, HALLER & NIRO
181 W. Madison Street, Suite 4600
Chicago, IL 60602

Attorneys for Plaintiff, Cascades Computer Innovation, LLC

By: /s/ Luke L. Dauchot
Luke L. Dauchot
Craig D. Leavell
KIRKLAND & ELLIS LLP
300 North LaSalle
Chicago, Il 60654
luke.dauchot@kirkland.com
(312) 862 9292
craig.leavell@kirkland.com
(312) 862 2105

Brandon Brown KIRKLAND & ELLIS LLP 555 California Street, 27th Floor San Francisco, CA 94104 brandon.brown@kirkland.com (415) 439-1670

Attorneys for Defendant Samsung Electronics Co., Ltd.